**MANAGEMENT DISTRICT** 

## **AUTHORITY TO CONSTRUCT**

A/C NO.: 21602 ISSUED BY: \_\_\_\_\_ADY R. SANTOS

**DATE ISSUED:** APRIL XX, 2009

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**ISSUED TO:** THE PROCTER & GAMBLE MANUFACTURING CO.

LOCATION: 8201 FRUITRIDGE RD., SACRAMENTO, CA 95826

DESCRIPTION: APC THERMAL OXIDIZER, BAKER FURNACE, MODEL SX 2500 SCFM, HEAT INPUT

RATING - 6 MMBTU/HR, COMBUSTION BLOWER - 71/2 HP

[AKA NORTH THERMAL OXIDIZER (NTO) VENTING VARIOUS EMISSIONS UNITS IN THE METHYL ESTER & GLYCERINE MFG PROCESS (P/O 20162), WHICH INCLUDES THE METHANOL RECOVERY PROCESS, AND THE FATTY ACIDS MFG PROCESS

(P/O NO. 20505)]

NOTE: THIS BERMIT MODIFIED AND CANCELS THE PREVIOUSLY ISSUED A/C NO. 20166.

## <u>AUTHORITY TO CONSTRUCT CONDITIONS</u>

### **GENERAL**

- THE EQUIPMENT SHALL BE PROPERLY MAINTAINED.
- THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS, SHALL BE PERMITTED.
  - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS AUTHORITY TO CONSTRUCT, AND
  - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS AUTHORITY TO CONSTRUCT, AND
  - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS AUTHORITY TO CONSTRUCT, AND
  - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
- 3. THIS AUTHORITY TO CONSTRUCT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
- 4. A LEGIBLE COPY OF THIS AUTHORITY TO CONSTRUCT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

**MANAGEMENT DISTRICT** 

# **AUTHORITY TO CONSTRUCT**

(CONTINUED)

A/C NO.: 21602

### **EMISSION LIMITATIONS**

- THE PROCESS SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANTS OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH ARE AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.
- 6. EMISSIONS FROM THE APC THERMAL OXIDIZER (NTO) SHALL NOT EXCEED THE FOLLOWING LIMIT:

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS LB/QUARTER
ROC	61 (A)

- (A) BASED ON CONTROLLED PROCESS VENT EMISSIONS AND DOES NOT INCLUDE COMBUSTION EMISSIONS (REFER TO CONDITION NO. 7) FROM THE THERMAL OXIDIZER BURNERS. SOURCES VENTED TO THIS THERMAL OXIDIZER ARE DEFINED IN THE FOOTNOTE 'A' IN TABLES 3 & 4 OF THE TITLE V PERMIT RENEWAL TV2008-02-01 STATEMENT OF BASIS.
- 7. COMBUSTION EMISSIONS FROM THE APC THERMAL OXIDIZER (NTO) SHALL NOT EXCEED THE FOLLOWING LIMITS:

	POLLUTANT	EMISSION FACTOR (A) LB/MMCF	MAXIMUM ALLOWABLE EMISSIONS (B) LB/QUARTER
ROC			73
NOx		36.4	482
SOx		0.6	8
PM10	A CHARLES OF THE PARTY OF THE P	7.6	101
СО		84	1,113

<sup>(</sup>A) EMISSION FACTORS ARE FROM AP-42, TABLES 1.4-1 ~ 1.4-2, EMISSIONS FROM NATURAL GAS COMBUSTION, PG 1.4-5 ~ 1.4-6 (7/98), EXCEPT FOR NOx WHICH IS BASED ON 30 PPMVD @ 3% O₂.

(B) EMISSIONS ARE BASED ON A MAXIMUM FUEL USAGE OF 6,000 CF/HOUR, 24 HOURS/DAY AND 92 DAYS/QUARTER.

**MANAGEMENT DISTRICT** 

### AUTHORITY TO CONSTRUCT

(CONTINUED)

A/C NO.: 21602

### **EQUIPMENT OPERATION**

THE APC THERMAL OXIDIZER (NTO) SHALL DEMONSTRATE EITHER A CONTROL DEVICE EFFICIENCY FOR TOTAL ORGANIC HAZARDOUS AIR POLLUTANT (OHAP) OR A PROCESS OUTLET CONCENTRATION FOR TOTAL ORGANIC COMPOUND (TOC) OR ORGANIC HAP (OHAP) ACCORDING TO THE FOLLOWING LIMITS:

	EMISSION LIMIT (A)	
CONTROL EQUIPMENT	CONTROL DEVICE EFFICIENCY OUTLET CONCENTRATION % BY WEIGHT PPMV	
APC THERMAL OXIDIZER (NTO)	≥ 98 ≤ 20	

- (A) IN ACCORDANCE WITH 40 CFR 63 SUBPART FFFF, SECTION 63.2455 & TABLE 1. SECTION 63.2460 & TABLE 2. AND **SECTION 63.2470 & TABLE 4.**
- THE EMISSION LIMITS SPECIFIED IN CONDITION NO. 8 SHALL NOT APPLY TO SUBPART FFFF AFFECTED GROUP 1 STORAGE TANK(S) IN SERVICE DURING PERIOD OF PLANNED ROUTINE MAINTENANCE OF THE CONTROL DEVICE PROVIDED SUCH PERIOD DOES NOT EXCEED 240 HOURS PER YEAR. IF IT IS ANTICIPATED THAT THIS LIMIT WILL BE EXCEEDED, P&G MUST SUBMIT AN APPLICATION TO THE ADMINISTRATOR OF THE U.S. EPA 60 DAYS BEFORE THE LIMIT WILL BE EXCEEDED. [40 CFR 63.2470 (D)]
- 10. WITHIN THIRTY (30) DAYS AFTER ESTABLISHING PROCESS DEFINITIONS FOR THE OPERATION OF THE APC THERMAL OXIDIZER, SUBMIT AN OPERATION AND MAINTENANCE PLANTOTHE AIR POLLUTION CONTROL OFFICER FOR APPROVAL.
  - THE OPERATION AND MAINTENANCE PLAN SHALL INCLUDE THE FOLLOWING INFORMATION:

    A. OPERATION AND MAINTENANCE PROCEDURES TO DEMONSTRATE CONTINUOUS OPERATION OF THE EMISSION CONTROL DEVICE DURING PERIODS OF EMISSIONS PRODUCING OPERATIONS.

    B. OPERATION OF THE EMISSION CONTROL DEVICE MAY BE SHUT DOWN OR BYPASSED ONLY FOR THE FOLLOWING
  - REASONS:
    - DURING STARTUP, SHUTDOWN OR MALEUNCTION AS DEFINED IN THE OPERATION ANDMAINTENANCE PLAN AND/OR STARTUP SHUTDOWN, MALFUNCTION PLAN; OR
    - DURING PERIODS WHEN THE EMISSION CONTROL DEVICE IS BEING TESTED. OR PREPARING TO BE TESTED. BY INTRODUCING A LOAD OF KNOWN MASS FLOW RATE, KNOWN AS "SPIKING".
  - THE PLAN SHALLINCLUDE KEY OPERATING PARAMETERS SUCH AS TEMPERATURE, PRESSURE, AND/OR PROCESS
  - RECORDS TO BE MAINTAINED TO MONITOR THESE OPERATION AND MAINTENANCE PROCEDURES. D.

### **EMISSION TESTING**

- 11. AN INITIAL SOURCE TEST SHALL BE PERFORMED ON THE APC THERMAL OXIDIZER (nTO) WITHIN SIXTY (60) DAYS FROM THE EQUIPMENT STARTUP TO DEMONSTRATE COMPLIANCE WITH THE EMISSION LIMIT SPECIFIED IN CONDITION NO. 8. HOWEVER, SOURCE TESTS CONDUCTED ON APRIL 1 & 3, 2008 HAVE ALREADY DEMONSTRATED COMPLIANCE WITH CONDITION NO. 8. AN ANNUAL SOURCE TEST, BEGINNING IN CALENDAR YEAR 2009, WILL BE REQUIRED TO VERIFY COMPLIANCE WITH THE EMISSION LIMIT IN CONDITION NO. 6. ADDITIONALLY, THE SOURCE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING:
  - SUBMIT A SOURCE TEST PLAN TO THE AIR POLLUTION CONTROL OFFICER FOR APPROVAL AT LEAST THIRTY (30) DAYS BEFORE THE SOURCE TEST IS TO BE PERFORMED.

MANAGEMENT DISTRICT

## **AUTHORITY TO CONSTRUCT**

(CONTINUED)

A/C NO.: 21602

- B. NOTIFY THE SMAQMD AIR POLLUTION CONTROL OFFICER AT LEAST SEVEN (7) DAYS PRIOR TO THE SOURCE TEST DATE IF THE DATE HAS CHANGED FROM THAT APPROVED IN THE SOURCE TEST PLAN.
- C. SUBMIT THE SOURCE TEST REPORT WITHIN SIXTY (60) DAYS OF THE SOURCE TEST DATE.
- D. WHERE NECESSARY, SAMPLE PORTS AND TEST PLATFORMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH U.S. EPA AND OSHA REQUIREMENTS.

### **EMISSION OFFSET**

12. EMISSION REDUCTION CREDITS FOR ROC HAVE BEEN PROVIDED BY PROCTER & GAMBLE TO FULLY OFFSET THE ROC EMISSIONS SPECIFIED IN A/C NO. 20166:

PERMIT NO.	CERTIFICATE POLITANT	POLLUTANT	EMISSION REDUCTION CREDITS (LB/QUARTER	
NO.	NO.	FOLLOTAIN	1 <sup>ST</sup> QTR 2 <sup>ND</sup> QTR 3 <sup>RD</sup> QTR 4 <sup>TH</sup> QTR	₹
A/C 20166	07-01036	ROC	73 73 73	

#### RECORDKEEPING

13. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON SITE FOR THE MOST RECENT FIVE-YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY AND QUARTERLY RECORDS AS SPECIFIED IN THE TABLE BELOW SHALL BE MADE AVAILABLE FOR INSPECTION WITHIN 30 DAYS FROM THE END OF THE MONTH AND QUARTER, RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
AT ALL TIMES	A. APC THERMAL OXIDIZER OPERATION AND MAINTENANCE PLAN. B. RECORDS SPECIFIED IN THE APPROVED OPERATION AND MAINTENANCE PLAN. C. NUMBER OF HOURS OF PLANNED ROUTINE MAINTENANCE (HOURS/OCCURANCE)
ANNUAL	TOTAL NUMBER OF HOURS OF PLANNED ROUTINE MAINTENANCE OF THE APC THERMAL OXIDIZER (HOURS/YEAR).

14. NO RECORDKEĚPING SHALL BE REQUIRED FÖR THE FUEL USAGE OF THE THERMAL OXIDIZER BECAUSE THE MAXIMUM ALLOWABLE COMBUSTION EMISSIONS ARE BASED ON THE MAXIMUM HEAT INPUT CAPACITY, 24 HOURS/DAY AND 92 DAYS/QUARTER.

### START-UP

- 15. UPON INSTALLATION OF THE EQUIPMENT AUTHORIZED IN THIS AUTHORITY TO CONSTRUCT, THE OWNER/OPERATOR SHALL CONTACT THE SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (SMAQMD) AT 916/874-4858 TO ARRANGE FOR A START-UP INSPECTION AND/OR INITIAL SOURCE TEST.
- 16. THIS AUTHORITY TO CONSTRUCT SHALL SERVE AS A TEMPORARY PERMIT TO OPERATE PROVIDED THAT:
  - A. THE SMAQMD HAS BEEN NOTIFIED FOR A START-UP INSPECTION,
  - B. THE EQUIPMENT INSTALLED MATCHES THE EQUIPMENT AUTHORIZED IN THE AUTHORITY TO CONSTRUCT, AND
  - C. THE EQUIPMENT IS OPERATED IN COMPLIANCE WITH ALL CONDITIONS LISTED WITHIN THE AUTHORITY TO CONSTRUCT.

MANAGEMENT DISTRICT

# **AUTHORITY TO CONSTRUCT**

(CONTINUED)

A/C NO.: 21602

YOUR APPLICATION FOR THIS AIR QUALITY AUTHORITY TO CONSTRUCT WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

AQMD RULE NO.	RULE TITLE
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES - STATIONARY SOURCE
401	RINGELMANN CHART
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
443	LEAKS FROM SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING
464	ORGANIC CHEMICAL MANUFACTURING OPERATIONS
40 CFR 60 SUBPART VV	STANDARDS OF PERFORMANCE FOR EQUIPMENT LEAKS OF VOC IN THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
40 CFR 60 SUBPART NNN	STANDARDS OF PERFORMANCE FOR VOLATILE ORGANIC COMPOUND EMISSIONS FROM SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY DISTILLATION OPERATIONS
40 CFR 60 SUBPART RRR	STANDARDS OF PERFORMANCE FOR VOLATILE ORGANIC COMPOUND EMISSIONS FROM SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY REACTOR PROCESSES
40 CFR 63 SUBPART FFFF	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING

IN ADDITION, THE CONDITIONS ON THIS AUTHORITY TO CONSTRUCT MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.